

# SR 520 Toll Rate Setting

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**Washington State Transportation Commission**  
**December 16, 2009**



Washington State  
Department of Transportation

# **Today's presentations**

- **SR 520 project overview**
- **SR 520 financial overview**
- **Approach to toll rate setting**
- **Toll rate setting in Orange County**
- **Implementation of SR 520 tolling**
- **Update on toll studies for other routes**

# SR 520

## Project Overview

Presented by:

**Julie Meredith**, SR 520 Project Director

# SR 520 Program Description

The SR 520 Bridge Replacement and HOV Program will replace the Portage Bay and Evergreen Point bridges and improve the existing roadway between I-5 in Seattle and SR 202 on the Eastside.

The SR 520 Bridge Replacement and HOV Program includes four projects:

- I-5 to Medina: Bridge Replacement and HOV Project** – I-5 to the vicinity of Evergreen Point Road.
- Medina to SR 202: Eastside Transit and HOV Project** – Evergreen Point Road to SR 202.
- Lake Washington Congestion Management Project** – Traffic management and tolling from I-5 to I-405.
- Pontoon Construction Project** – Pontoons for catastrophic failure planning.



Program area map.

# SR 520 Design Development

- Mediation process in 2007/08 led to development of options A, K, and L.
- These three options will be studied in the Supplemental Draft EIS that will be published in early 2010.
- The ESHB 2211 Legislative Workgroup then developed options A+ and M during the 2009 process.
- Legislative Workgroup is recommending option A+ that will be included in the report due to the Governor and Legislature by January 1, 2010.



# Legislative Workgroup Design Recommendation (11/17/09)

## **Motion:**

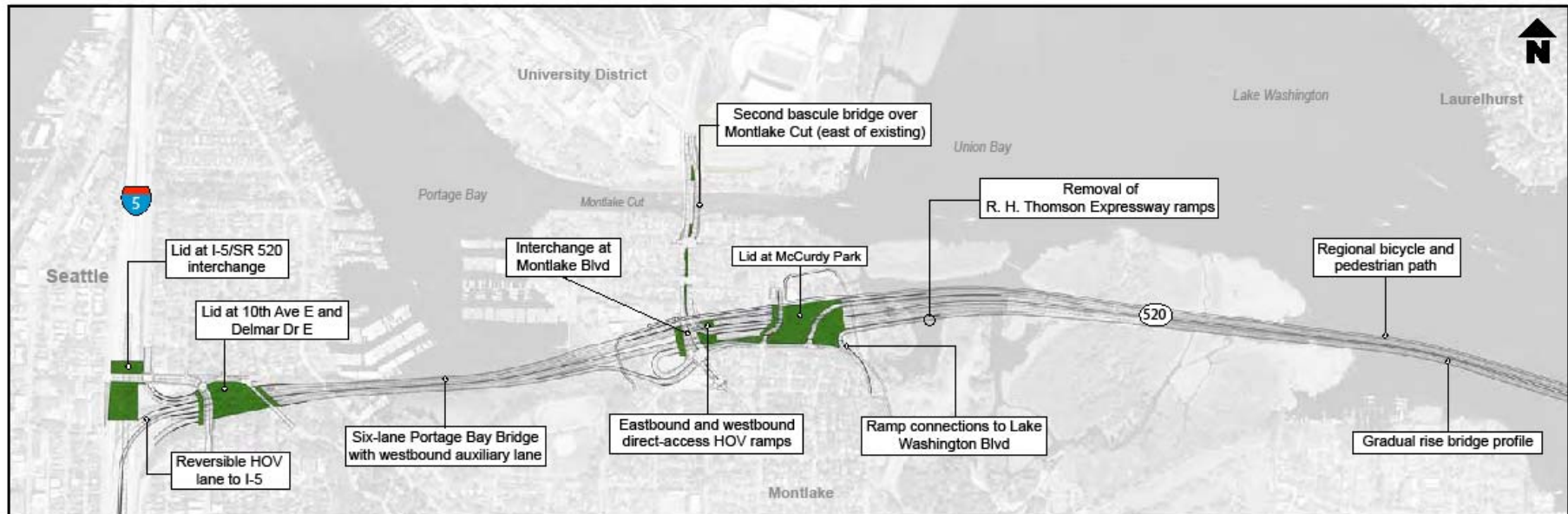
The Legislative Workgroup recommends adoption of the A+ option, developed during the consultation with the communities during the Westside Subgroup process as the preferred alternative for the Westside design. This option is preferred for the following reasons:

1. It meets the purpose and need of the project and complies with statutory requirements to implement a six lane (four general purpose and two HOV lanes) bridge replacement project, and
2. It meets the transportation needs of the corridor with the least impact to the surrounding environment, and
3. It can be constructed within the \$4.65 billion financial threshold, and
4. The impacts are covered within the current Supplemental Draft Environmental Impact Statement, and
5. It meets the needs of transit providers within the SR 520 corridor and on local surface streets, and
6. It has broad based support from local communities including the University District Community Council, Ravenna Bryant, and Friends of Seattle's Olmstead Park and regional organizations including the University of Washington, Seattle Chamber, King County Metro, and the Eastside Transportation Partnership.

# Option A+



## Westside design option draft recommendation: Option A+



**Total Cost,  
I-5 to  
Floating Bridge**

**\$2.027B  
to  
\$2.127B**

**Total Program  
Cost**

**\$4.531B  
to  
\$4.631B**

Note: Above are preliminary cost estimates. This option has not been reviewed through a CEVP process.

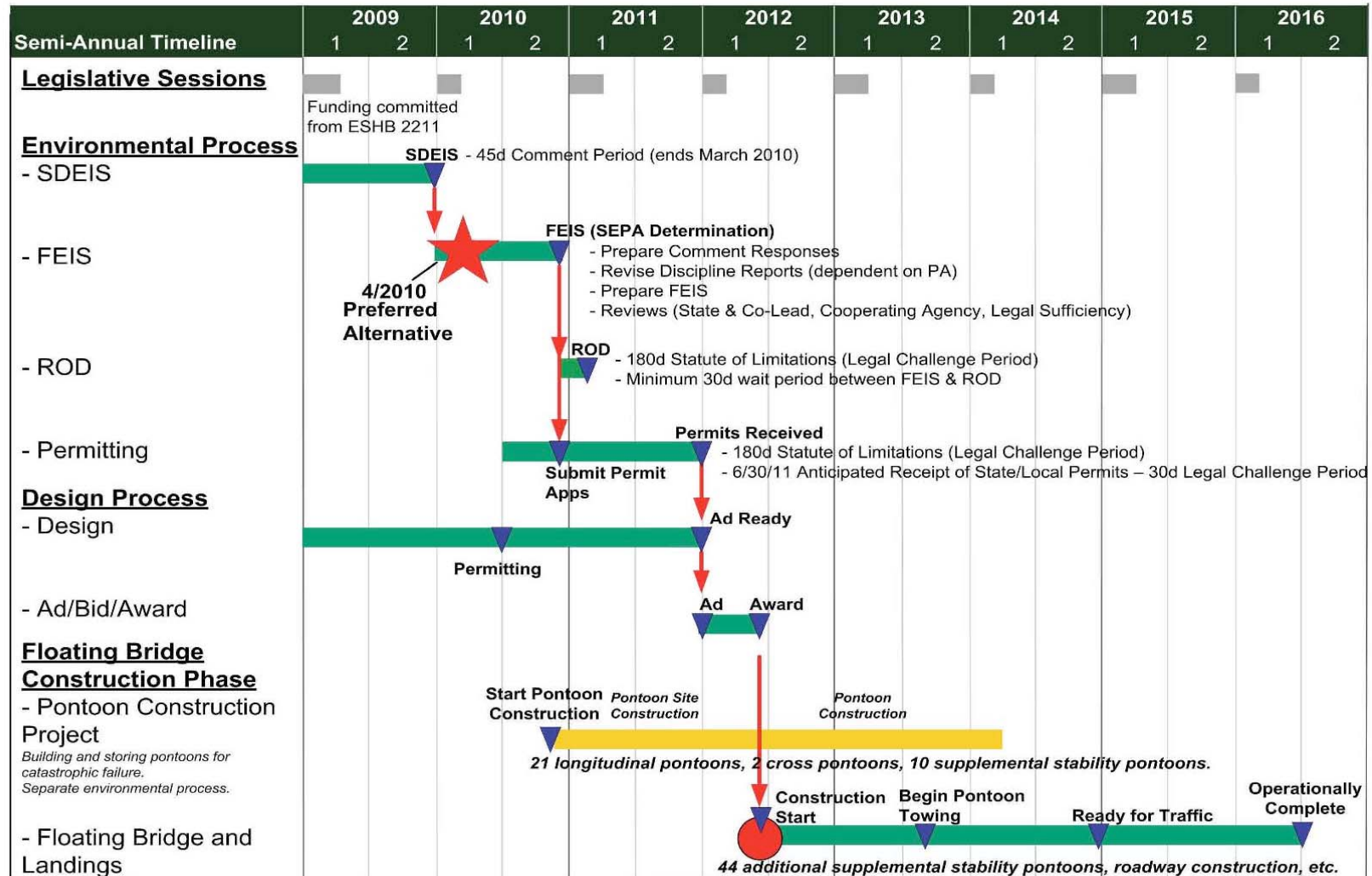
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# SR 520 Schedule

## I-5 to Medina: Bridge Replacement and HOV Project

*Floating bridge and landings critical path elements*





# SR 520

## Financial Overview

Presented by:

**Amy Arnis**, WSDOT CFO

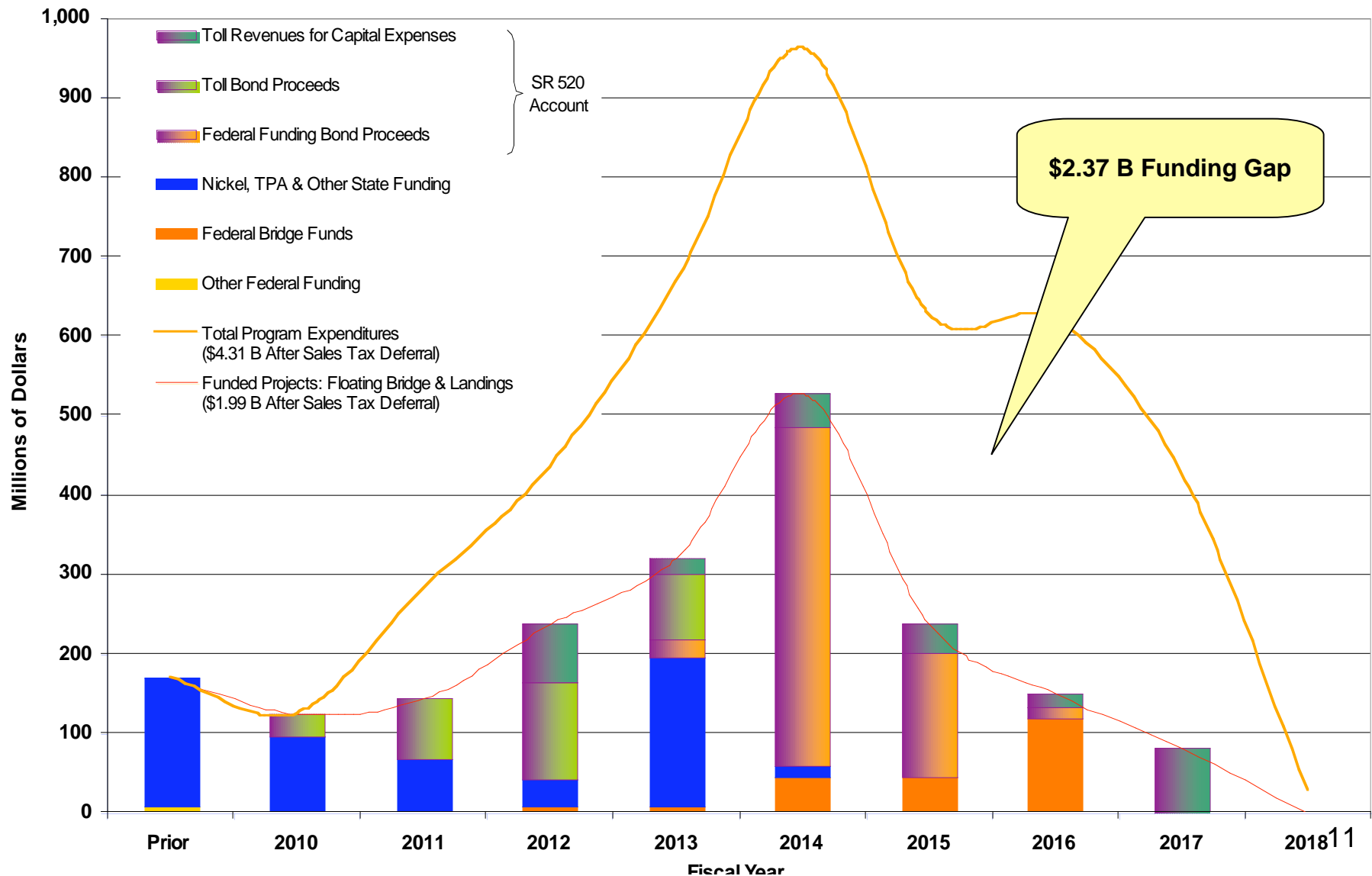
**Helena Kennedy Smith**, WSDOT Toll Division Finance Director

# SR 520 Program — What Is Funded?

- \$4.65 B Program — **Not Fully Funded**
  - \$4.36 B after sales tax deferral
  - \$2.37 B funding gap as of April 2009
- \$2.11 B Floating Bridge & Landings — **Fully Funded**
  - \$1.99 B after sales tax deferral
  - Floating bridge and landings fully funded as of April 2009



# \$4.65 B Program Funding Gap



# \$4.65 B Funding Plan

- **Filling the gap, per the 2211 Legislative Workgroup:**
  - “Tolling Implementation Committee Scenario 7” tolls can contribute \$400m
  - “early tolling of HOT lanes on I-90 as soon as is practicable”
  - Seek new state/federal funding
  - Or, if new state & federal contributions cannot fill the gap, toll I-90 no sooner than 2014



# Bridge & Landings Program

(\$2.11 B project)

- WSDOT has authority to toll SR 520, to move ahead with constructing this project, and to sell bonds to help pay for the project
- The Commission will set toll rates
- Tolling will be 100% electronic – no toll booths
- Payments will be made via transponders or license plate recognition
  - Transponder tolls are the “base rate”
  - Pay-by-plate transactions will cost more. The added cost is sized to be “revenue neutral,” whether a prepaid account or post-paid bill.
  - Expect more revenue loss than in cash collection



# 2009 Legislation

## ▪ 2009 Toll authorization bill (ESHB 2211)

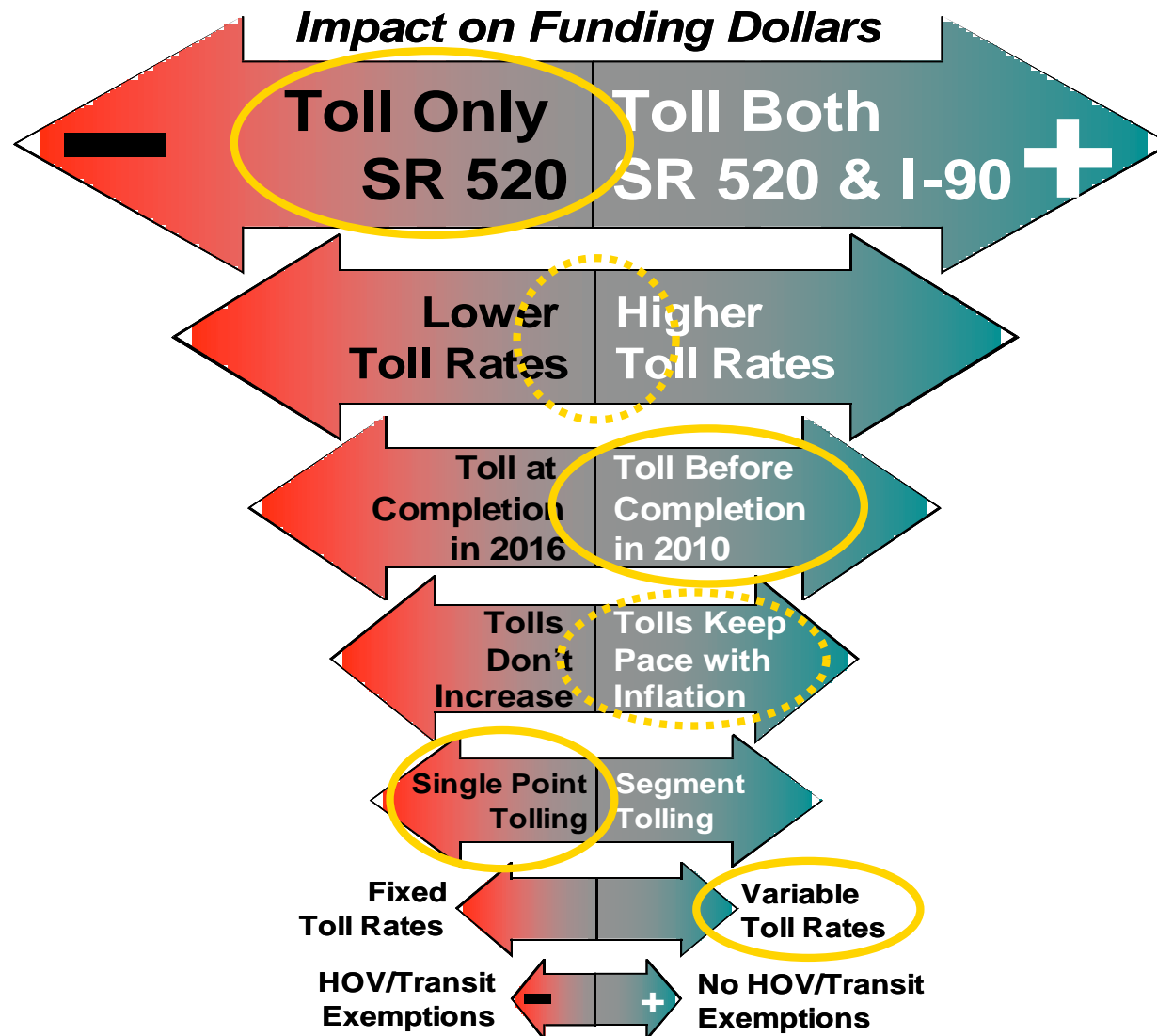
- Proceeds are available to help construct the bridge & landings.
- Tolls as authorized in Sec 2 may only be charged for travel on the floating bridge portion of the corridor.
- Tolling authority shall set variable schedule of toll rates to maintain travel time, speed and reliability and generate the necessary revenue.
- Toll rates may be adjusted at least annually to reflect inflation as measured by the CPI or as necessary to meet redemption of bonds and interest payments.

## ▪ 2009 Bond bill (ESHB 1272)

- Authorized the issuance of up to \$1.950 billion general obligation bonds first payable from toll revenue and excise taxes on motor vehicle and special fuels.
- Toll Revenue is to be contractually *pledged*: Not a reimbursement between agencies.

# Tolling SR 520:

## Summary of legislative direction





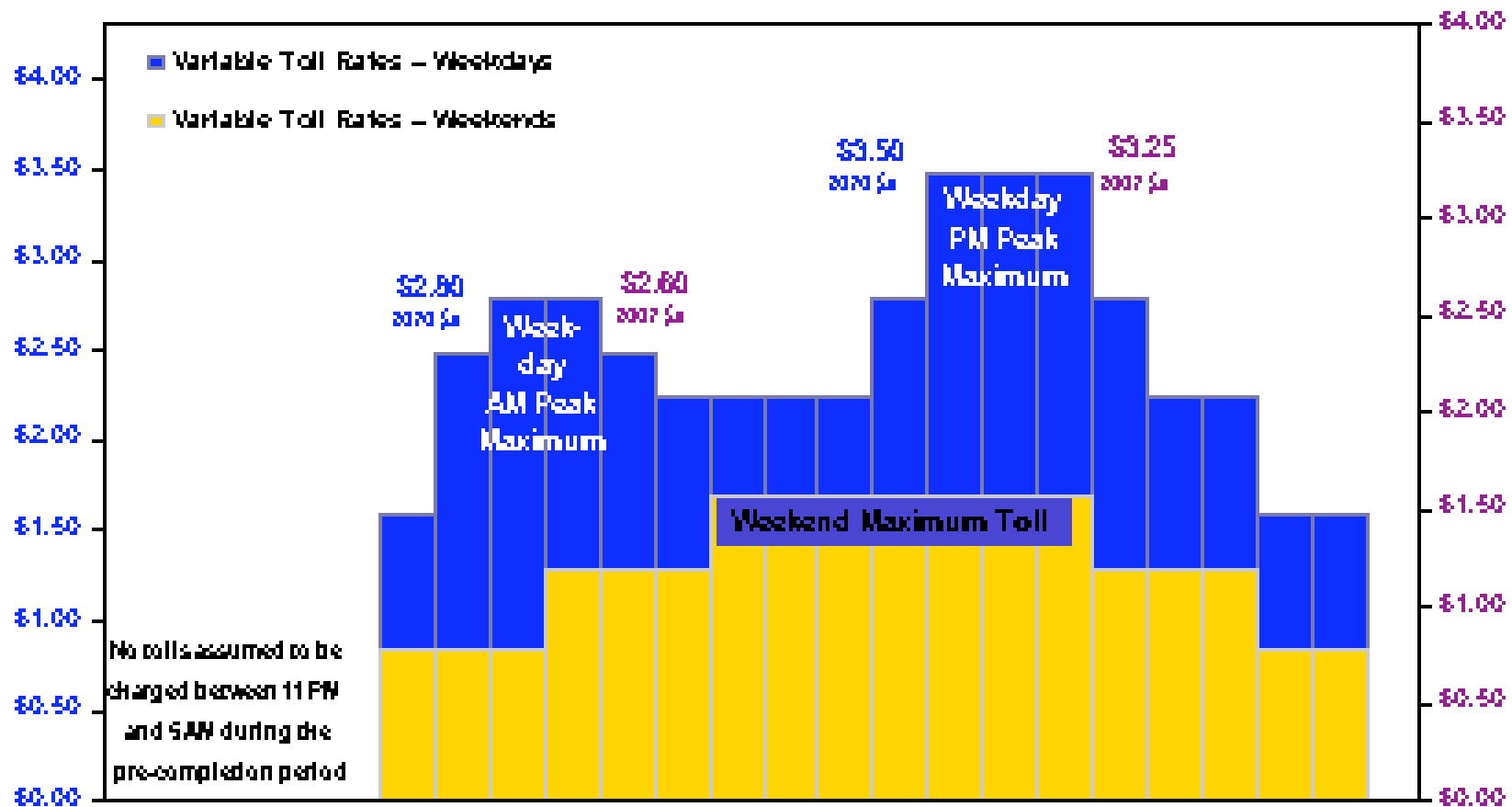
# Tolling the Bridge

- **Toll rate assumptions underlying the \$2.11 B finance plan:**
  - Initial rate: “Tolling Implementation Committee Scenario 7” maximum pm peak period toll rate: \$3.25 (2007\$). Morning peak is lower.
  - Tolls vary on a fixed schedule, by hour & weekday/weekend.
  - Tolls keep pace with inflation
  - In July 2016, tolls jump to “Tolling Implementation Committee Scenario 7” maximum peak period toll rate: \$3.80
- **Toll rates are needed this spring as preparation for bond sales in summer 2010.**



# “Medium” toll rate assumptions

SR 520 account: [Pre-completion](#) variable toll schedule



# Other Assumptions Underlying \$2.11B Finance Plan

## Traffic assumptions

- Early tolling begins March 19, 2011
- 77% have transponders or have pre-paid license plate accounts
- Tolls vary by time of day
- Trucks pay a higher rate than autos
- Transit and HOV 3+ travel free, beginning in 2016

## Operations & maintenance

- O&M was sized to maintain entire facility between I-5 and I-405.
- Facility O&M is not deducted until the new bridge is complete. Until then, maintenance on the existing bridge is assumed to be covered by “M” program.

# Financial Modeling Assumptions

- **Maximum term** — 30 years
- **Interest Rates:**
  - Current interest bonds — 6.00%
  - Zero coupon bonds — 6.50%
- **Minimum Debt Service Coverage Ratio** — 1.25x
- **Reserves for:**
  - Debt service
  - Operations & maintenance
  - Rehabilitation and replacement

# Considerations

- This is not the Tacoma Narrows Bridge.
- Toll revenue must pay for debt – toll revenue is contractually pledged.
- Be mindful this is the first phase for this corridor. Full \$4.65 B corridor funding assumes completion of additional phases of the project.

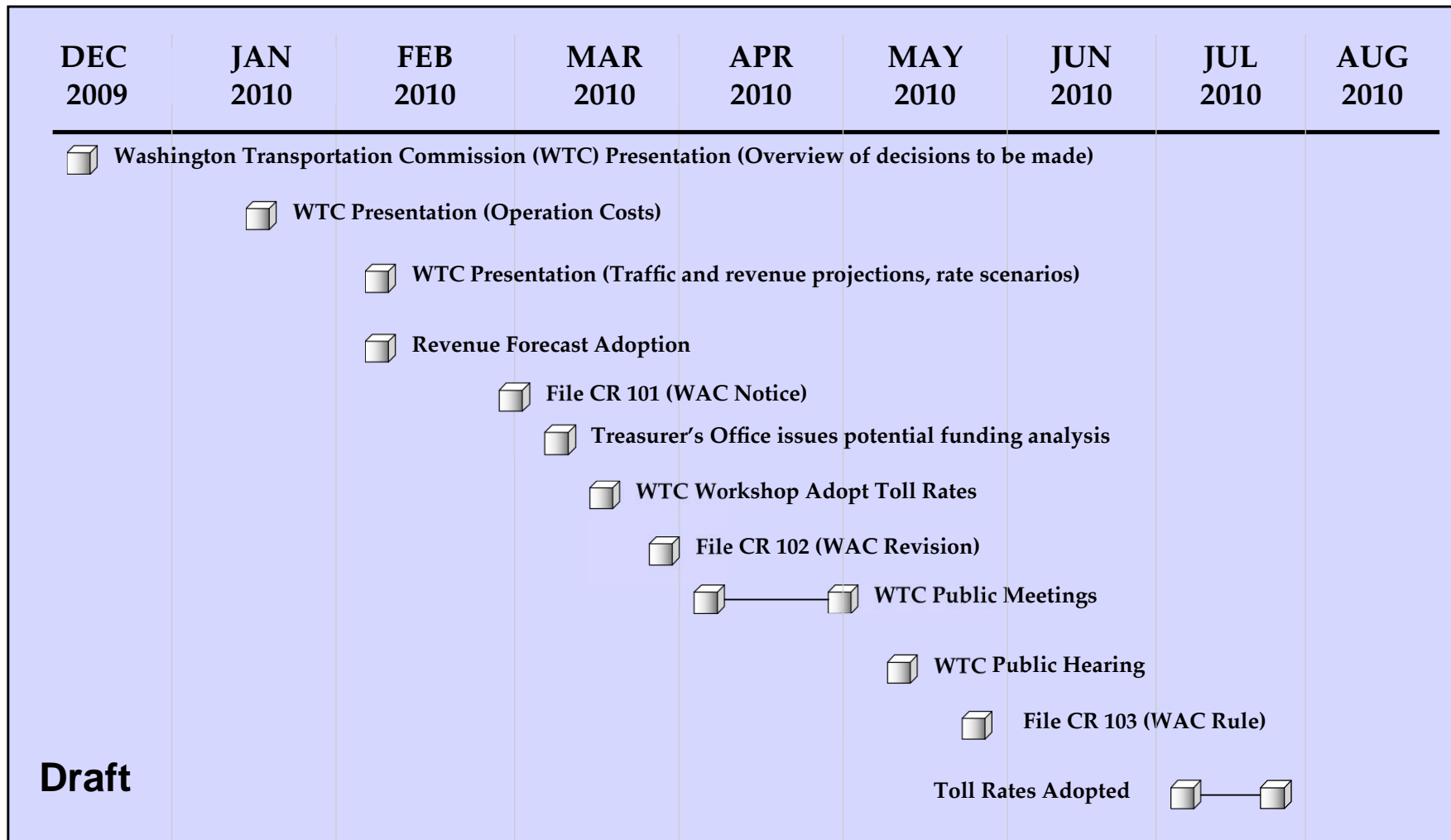


# Approach to Toll Rate Setting

Presented by:

**Craig Stone**, WSDOT Toll Division Director

# Proposed Toll Rate Timeline 2009-10



## Notes:

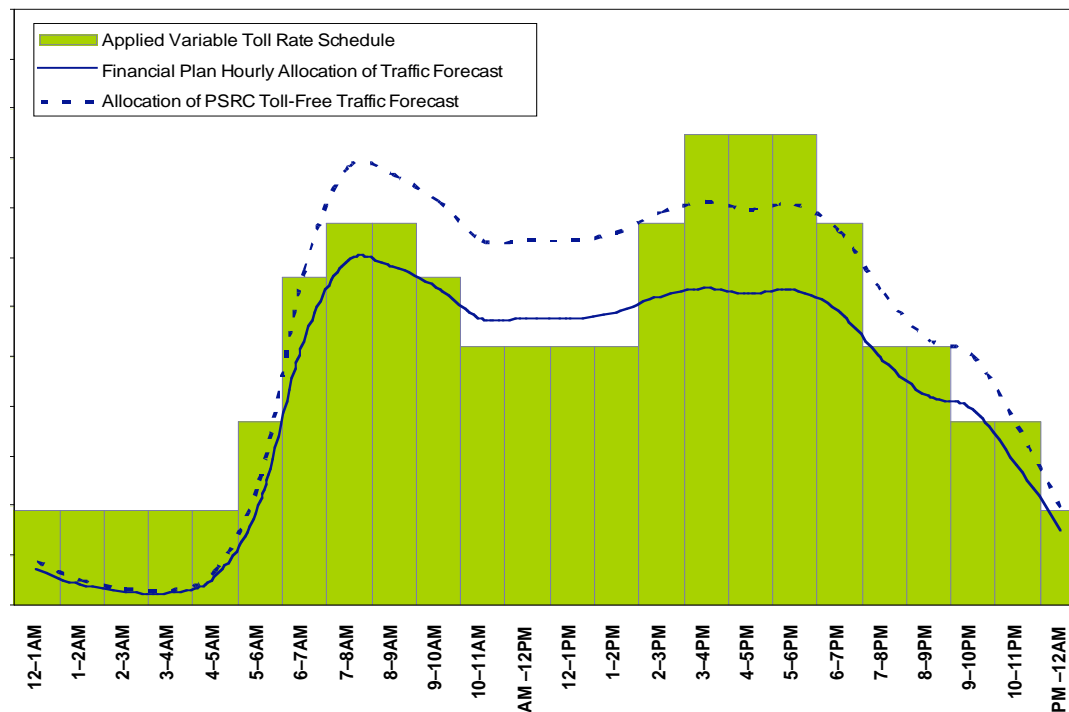
Public Meetings on 520 Toll Rates to be held in Seattle and in eastside communities (i.e. Bellevue, Kirkland)



# Issues To Consider

■ **SR 520 Toll Rate Setting will be more complex than SR 520 Narrows Bridge with SR 467 HOV lanes**

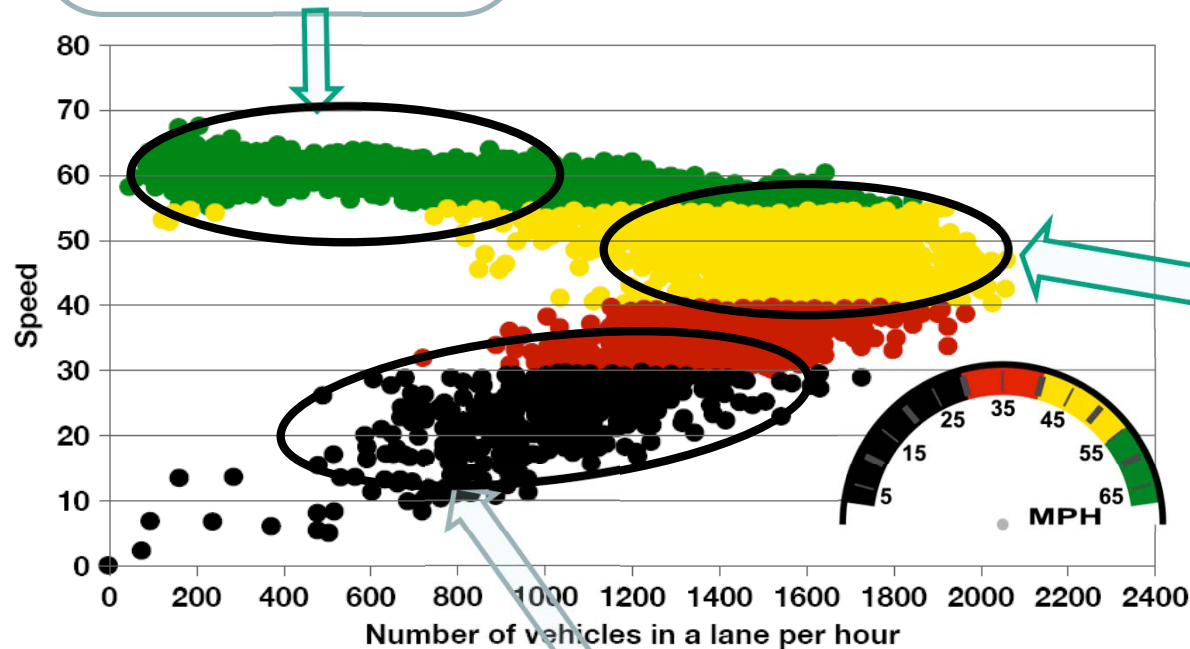
- Need to consider both revenue and congestion management goals
- All-electronic tolling will require different approach for tolling infrequent customers
- Urban Partnership Agreement objectives need to be accommodated



# Maximizing throughput

*The most effective price to move the most traffic*

If the price is too high, the lanes will be empty

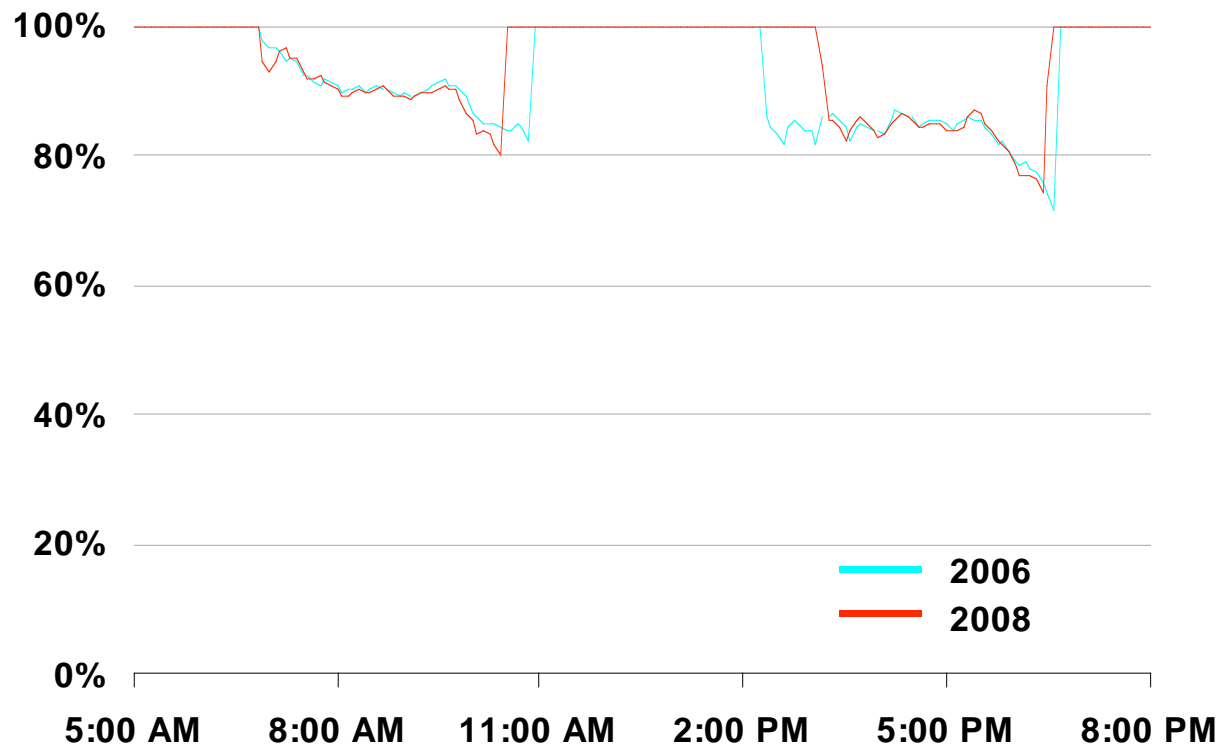


Priced to obtain free flow conditions.

If the price is too low, the lanes will be congested and slow moving

# Lost Throughput Productivity

## SR 520 at Evergreen Point Floating Bridge (MP 1.5)



*Based on AM westbound 1740 vphpl and PM eastbound 1760 vphpl*

# Additional Issues To Consider

## **Consistency**

- What toll practices must be consistent from one corridor to the next?

## **Base Rates and Financial Policies**

- What financial policies are needed?
- How will early tolling rates compare to future rates?
- Will truck rates be set using the same approach as TNB?

## **Discounts and Exemptions**

- What (if any) discounts or exemptions should be provided to transit, vanpools, carpools, low-emission vehicles, etc?
- Should discounts vary on different tolled facilities?

# Issues To Consider Regarding Complexity and Fees

## **Rate structure/complexity**

- How much complexity is needed to manage traffic effectively?
- How important is simplicity to the customer?
- How will rate structure be displayed/signed to the motorist in real time?

## **Account incentives or fees**

- What are objectives for varying price by account/payment type?
- Better to set tolls with incentives, or charge fees for higher cost collection?



# Issues To Consider Regarding Rate Change Process

**What elements of rate-setting will be specified by the Commission?**

- Full rate and fee schedule?
- Principles for adjusting by time period administered by WSDOT?

**How often should rates be adjusted?**

- Can some adjustments be made by WSDOT, and under what circumstances?

**Should an advisory process be used?**

- Commission only, regional, corridor or facility?
- Input limited to tolls, or full corridor management?
- Consistent process for all corridors?

# Timeline For Discussion

## **Tight schedule for rate setting**

- Must recommend toll rates by March to sell bonds in July.
- Adopt toll rates by rule by July.
- This is half the time used to set initial toll rates for TNB.

## **Will require significant time investment**

- Allocate at least a half-day for discussion at Jan, Feb, March meetings.
- Workshops with Tolling Subcommittee leading into meetings.





# Toll Rate Setting in Orange County, California

Presented by:

**Craig Stone**, WSDOT Toll Division Director

# A Toll Rate Setting Example From Orange County, California

- OCTA is the Orange County, California MPO, Transit Operator and owner of the 91 Express Lanes.
- The OCTA Board is made up of local elected officials.
- OCTA bought the 91 Express Lanes in 2002 from California Private Transportation Company, the original private developer, owner and operator.
- OCTA refinanced the (private) debt and inherited the toll schedule in place at transfer of ownership.
- In 2003, OCTA adopted a policy for toll rate changes that does not require board approval of the specific adjustments.
- There is an advisory committee comprised of Board members that meets quarterly; however, they are not required to approve any toll adjustments prior the adjustment.
- The toll policy requires the Board and customers to be informed about any toll adjustments ten days prior to the change.

# Goals Were Set By The OCTA Board

## The toll adjustment goals are to:

- reduce the likelihood of congestion by diverting traffic to other hours with available capacity;
- maintain free-flow travel speed in the Express Lanes;
- maintain travel time savings;
- accommodate projected growth in travel demand, and;
- ensure that the toll road generates sufficient revenue to effectively operate the toll lanes and maintain a strong debt service position.



# Parameters For Adjusting Toll Rates

## **Super Peak hours are determined as follows:**

- Traffic volumes are monitored on a rolling 12 consecutive week basis.
- Hourly, daily, and directional traffic volumes of 3,128 or more are flagged for further review.
- If traffic volume is consistently at a level of “Super Peak” then the toll rate for that hour, day and direction may be increased.
- The toll for that hour, day, and direction can be adjusted, as follows:
  - if the average vehicle volume is 3,300 or more, the toll is increased by \$1.00.
  - if the average vehicle volume is between 3,200 and 3,299, the toll is increased by \$0.75.
  - if the average vehicle volume is less than 3,200, the toll is not changed.
  - if volume is below 2720, toll rate is decreased by \$0.50.

*Customers are informed of a toll adjustment 10 or more days prior to that toll adjustment becoming effective. Toll rate remains in effect for six months.*

# Toll Schedule in Orange County

**91 Express Lanes** **Toll Schedule** **Eastbound**  
Effective October 1, 2009 SR-55 to Riverside Co. Line

	Sun	M	Tu	W	Th	F	Sat
Midnight	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
1:00 am	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
2:00 am	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
3:00 am	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
4:00 am	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
5:00 am	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
6:00 am	\$1.30	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$1.30
7:00 am	\$1.30	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$1.30
8:00 am	\$1.65	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05
9:00 am	\$1.65	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05
10:00 am	\$2.50	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.50
11:00 am	\$2.50	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.50
Noon	\$3.00	\$2.05	\$2.05	\$2.05	\$2.05	\$3.10	\$3.00
1:00 pm	\$3.00	\$2.85	\$2.85	\$2.85	\$3.10	\$4.85	\$3.00
2:00 pm	\$3.00	\$4.05	\$4.05	\$4.05	\$4.15	\$4.10	\$3.00
3:00 pm	\$2.50	\$4.35	\$3.70	\$5.45	\$5.90	\$9.50	\$3.00
4:00 pm	\$2.50	\$5.55	\$7.75	\$8.25	\$9.90	\$9.30	\$3.00
5:00 pm	\$2.50	\$5.35	\$7.25	\$7.75	\$9.05	\$7.25	\$3.00
6:00 pm	\$2.50	\$4.35	\$4.10	\$3.60	\$4.90	\$5.25	\$2.50
7:00 pm	\$2.50	\$3.10	\$3.10	\$3.10	\$4.45	\$4.90	\$2.05
8:00 pm	\$2.50	\$2.05	\$2.05	\$2.05	\$2.85	\$4.45	\$2.05
9:00 pm	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.85	\$2.05
10:00 pm	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$2.05	\$1.30
11:00 pm	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30

**91 Express Lanes** **Toll Schedule** **Westbound**  
Effective October 1, 2009 Riverside Co. Line to SR-55

	Sun	M	Tu	W	Th	F	Sat
Midnight	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
1:00 am	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
2:00 am	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
3:00 am	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
4:00 am	\$1.30	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40	\$1.30
5:00 am	\$1.30	\$3.95	\$3.95	\$3.95	\$3.95	\$3.80	\$1.30
6:00 am	\$1.30	\$4.05	\$4.05	\$4.05	\$4.05	\$3.95	\$1.30
7:00 am	\$1.30	\$4.50	\$4.50	\$4.50	\$4.50	\$4.35	\$1.75
8:00 am	\$1.75	\$4.05	\$4.05	\$4.05	\$4.05	\$3.95	\$2.05
9:00 am	\$1.75	\$3.25	\$3.25	\$3.25	\$3.25	\$3.25	\$2.50
10:00 am	\$2.50	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.50
11:00 am	\$2.50	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.90
Noon	\$2.50	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.90
1:00 pm	\$2.90	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.90
2:00 pm	\$2.90	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.90
3:00 pm	\$2.90	\$2.05	\$2.05	\$2.05	\$2.05	\$2.50	\$2.90
4:00 pm	\$3.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.50	\$3.05
5:00 pm	\$3.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.50	\$3.05
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7:00 pm	\$2.50	\$1.30	\$1.30	\$1.30	\$1.30	\$2.05	\$2.05
8:00 pm	\$2.50	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
9:00 pm	\$2.50	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
10:00 pm	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30
11:00 pm	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30	\$1.30

## Holiday toll schedules for:

New Years  
Easter  
Mother's Day  
Memorial Day  
Fourth of July  
Thurs before Labor Day  
Fri before Labor Day  
Labor Day  
Wed before Thanksgiving  
Thanksgiving  
Fri after Thanksgiving  
Christmas Day

# Implementation of SR 520 Tolling

Presented by:

**Craig Stone**, WSDOT Toll Division Director

**Jennifer Ziegler**, WSDOT Toll Division  
Government and Communications Director

# Contracts Being Procured

- Statewide Customer Service Center vendor
- Toll Collection System vendor
- Transponder vendors
- Signage contract

The contracting process for all vendors:

- Provides the best value to users
- Minimizes risks related to delivery
- Maintains the integrity of the bidding process



# Possible Statutory or Rule-Making Clarifications

- Authorization for a grace period prior to the issuance of an infraction.
- Authorization of video-tolling and post-payment options.
- Timelines for billing and the authority to assess administrative fees.
- Clarification regarding the use of license plate information.





# Update on Toll Studies For Other Routes

Presented by:

**Craig Stone**, WSDOT Toll Division Director

**Jennifer Ziegler**, WSDOT Toll Division  
Government and Communications Director

# Current Tolling Studies

- **I-405 Eastside Corridor study on express toll lanes**
  - Outreach included open houses, committee meetings; phone survey, on-line survey, four focus groups, updated video for website.
  - Final Executive Tolling Committee meeting was December 10.
  - Report due to legislature and Governor January 2010.
- **Columbia River Crossing**
  - Outreach included open houses, committee meetings, on-line survey.
  - Final committee meeting was December 7.
  - Report due to legislature and Governor January 2010.
- **Alaskan Way Viaduct replacement**
  - Traffic and revenue study on the viability of tolls contributing up to \$400 million toward project.
  - Report due to legislature and Governor January 2010.

# Questions?

For more information on SR 520 Toll Rate Setting,  
please contact

Jennifer Ziegler, Toll Division

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206-464-1194, or [ZiegleJ@wsdot.wa.gov](mailto:ZiegleJ@wsdot.wa.gov).



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Department of Transportation